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December 12, 2007

The Honorable Chairman and Members of the  
Public Utilities Commission of the State of Hawaii  
465 South King Street  
Honolulu, Hawaii 96813

Dear Commissioners:

Subject: Docket No. 2006-0387 – MECO 2007 Test Year Rate Case  
Final Settlement Letter – Rate Design Issues

PUBLIC UTILITIES  
COMMISSION

2007 DEC 12 P 3:35

FILED

This Final Settlement Letter documents agreements between Maui Electric Company, Limited (“MECO” or “Company”) and the Division of Consumer Advocacy of the Department of Commerce and Consumer Affairs (“Consumer Advocate”) (collectively referred to as the “Parties”) on the remaining rate design issues in this proceeding. Exhibit 1 documents the agreements reached by the Parties.<sup>1</sup>

The agreements set forth in Exhibit 1 are for the purpose of simplifying and expediting this proceeding, and represent a negotiated compromise of the matters agreed upon, and do not constitute an admission by any party with respect to any of the matters agreed upon herein. The Parties expressly reserve their right to take different positions regarding the matters agreed to herein in other proceedings.

The Parties agree that the rate changes specifically set forth in this Final Settlement Letter result in just and reasonable rates for MECO’s regulated electric operations. The Parties shall support and defend this Final Settlement Letter before the Commission. If the Commission adopts an order approving all material terms of this settlement, the Parties will also support and defend the Commission’s order before any court or regulatory agency in which the order may be at issue. If the Commission does not issue an order adopting all material terms of this Final Settlement Letter, either or both of the Parties may withdraw from this Settlement, and such Party or Parties may pursue their respective positions on MECO’s application without prejudice. For the purposes of

<sup>1</sup> On December 7, 2007, MECO filed a stipulated settlement letter documenting agreements reached between the Parties on revenue requirement issues in this rate case.

The Honorable Chairman and Members of the  
Public Utilities Commission of the State of Hawaii  
December 12, 2007  
Page 2

this Final Settlement Letter, whether a term is material shall be left to the discretion of the Party choosing to withdraw from the Settlement.

Sincerely,



William A. Bonnet  
Vice President

Enclosure

cc: Division of Consumer Advocacy

Concurred:



Catherine P. Awakuni  
Executive Director  
Division of Consumer Advocacy  
Department of Commerce and Consumer Affairs



DOCKET NO. 2006-0387  
MAUI ELECTRIC COMPANY, LIMITED 2007 TEST YEAR RATE CASE

AGREEMENTS ON RATE DESIGN BETWEEN  
MAUI ELECTRIC COMPANY, LIMITED AND THE CONSUMER ADVOCATE

**COST OF SERVICE/REVENUE ALLOCATION/RATE DESIGN**

1. Cost of Service Study - A cost of service study is a tool used to estimate the cost responsibility of the different rate classes served by MECO for ratemaking purposes. The Company prepared two types of cost of service studies for this proceeding, one based on embedded or accounting costs, and the other was based on marginal costs. Although both studies reflected the costs of providing service, the procedure and emphasis of each of these two studies were different. An embedded cost of service study (or simply "cost of service study") is a process used to categorize and allocate the total utility costs of providing service (the utility's total revenue requirements) to the various rate classes in order to determine each class's estimated cost responsibility. In contrast, a marginal cost study determines the change in the utility's costs of providing service due to a unit change in kilowatts ("kW"), kilowatthours ("kWh"), or number of customers served by the utility (MECO T-18, pages 1-2).

Development of MECO's embedded cost of service study for this proceeding involved three steps. First, the functionalization process categorized each of the costs and rate base items into the major operating functions: production, transmission and distribution. Second, the classification process classified each of the functionalized costs and rate base items into each of three costs components: energy-related, demand-related and customer-related. Third, each of the three costs components were allocated to the different rate classes by allocation factors (MECO T-18, pages 5-9). MECO provided its embedded cost of service study in direct testimony based on a cost allocation methodology previously approved by the Commission (MECO T-18, pages 11-12).

In its direct testimony, the Consumer Advocate stated that MECO's general procedures for its embedded cost of service study are widely accepted and, with a few exceptions, are reasonable for a utility with MECO's service characteristics (CA-T-5, page 8). The Consumer Advocate also concurred with the Company's methodology for allocating the test year production and transmission demand costs (CA-T-5, page 11).

However, the Consumer Advocate expressed two concerns with MECO's cost of service methodology. First, the Consumer Advocate asserted that because the distribution network of poles, lines and transformers do not vary directly with the number of customers being served, these costs should be classified as entirely demand-related, as opposed to partially customer-related as classified by MECO. Second, the Consumer Advocate maintained that some production O&M costs vary with kWh output and

therefore should be treated as energy-related costs. In contrast, MECO had treated all non-fuel production O&M costs as demand-related. The Consumer Advocate contended that its recommended changes to classifying and allocating the respective costs are reasonable and should be considered by the Commission. The Consumer Advocate also recommended that the Company conduct a study to determine the mix of demand/energy production O&M cost drivers in support of its next rate case filing and embedded cost of service study (CA-T-5, pages 9, 11-12).

The Consumer Advocate did not propose any changes to the Company's marginal cost study.

As HECO and the Consumer Advocate agreed in Docket No. 2006-0386 (HECO 2007 test year rate case), for settlement purposes in this rate case:

- a) The Parties concur that agreement on a cost of service methodology is not a requirement to settle this rate case since the proposed rates that are based on the agreed upon test year revenue requirements are not based directly upon the results of the cost of service study as noted in paragraph 2 below. The agreements on revenue allocation and rate design presented below are reasonable given the results of both MECO's and the Consumer Advocate's proposed cost of service methodologies;
- b) MECO agrees in its next rate case to present a cost of service study utilizing the same distribution classification methodology as it used in this case, as well as a cost of service scenario that classifies all distribution network costs (poles, conduits, lines, and transformers investment and expenses) as demand-related. MECO can present other cost of service scenarios, if desired, and make whatever recommendations it chooses regarding interpretation and utilization of cost of service evidence; and
- c) MECO agrees to conduct studies designed to isolate the demand (fixed) versus energy (variable) elements of its non-fuel production O&M expenses for use in the next MECO rate case, to be included in all of MECO's cost of service scenarios.

2. Inter-Class Allocation of Revenue Increase – In its direct testimony, MECO proposed to assign the revenue increase in the same percentage to each division (Maui, Lanai and Molokai) and to each rate schedule within each division (MECO T-18, page 5) because the allocation of the revenue increase according to cost of service would have resulted in excessively large increases for customers on Lanai and Molokai. Therefore, to mitigate the hardship on these customers, the Company proposed an equal percentage increase for each division (MECO T-1, pages 21-22).

The Consumer Advocate stated that because cost of service results can change significantly from one test period to another due to shifts in load conditions, expense levels or methodology changes, cost of service results should only be used as a guide and other factors must also be considered in developing rates that are intended to recover the test year revenue requirement (CA-T-5, page 36). The Consumer Advocate concurred

that customer impacts should be considered in developing the proposed rates and thus agreed with the Company's proposal to assign the same percentage increase to each division and to each rate schedule within each division. In supporting MECO's proposal, the Consumer Advocate noted that an equal percentage rate increase will produce gradual movement toward indicated cost of service under either the MECO or Consumer Advocate's recommended embedded cost of service allocation methodologies (CA-T-5, page 38).

3. Intra-Class Rate Design

Schedule R

Schedule R service applies to residential lighting, heating, cooking, air conditioning and power in a single family dwelling unit metered and billed separately by the Company. The Company proposed an inclining block rate design (with lower than average rate increases for customers with kWh usage in the lowest tier, no more than approximately the class average rate increase for customers with kWh usage in the middle tier, and above average increases for customers with kWh usage in the highest tier), no changes to customer charges, and a provision for customers in the LIHEAP program to be charged only at the lowest price tier of the non-fuel energy charges. The merits of an inclining block rate design include mitigation of rate impact on the smallest users of the system, pricing signals that help to encourage conservation, and assignment of a greater share of the cost increase to the larger users. The provision for customers in the LIHEAP program would be the same as proposed in the most recent HECO and HELCO rate cases (MECO T-18, pages 15-16).

As it had done in Docket Nos. 2006-0386 (HECO 2007 test year rate case) and 05-0315 (HELCO 2006 test year rate case), the Consumer Advocate agreed with the Company's residential inclining block rate design proposals, stating that inclining block rate structures can strengthen the incentive for residential customers to invest in conservation, improve affordability of electric service for customers with low usage levels and mitigate rate increase impacts on lower income consumers who elect to limit their usage to the lower tiers of the rate. The Consumer Advocate also stated that the proposal for LIHEAP customers is an important element of the inclining block rate proposal that should be approved by the Commission. (CA-T-5, pages 43-44.)

Commercial Rate Schedules – Customer Charges

Schedule G is for general power service applicable to small commercial customers with loads not exceeding 5,000 kWh per month or loads less than or equal to 25 kW. MECO proposed Schedule G customer charges of \$25 per month for single phase service and \$40 per month for three phase service at Maui Division (MECO T-18, page 18), \$30 per month for single phase service and \$45 per month for three phase service at Lanai Division (MECO T-18, page 49), and \$23 per month for single phase service and \$34 per month for three phase service at Molokai Division (MECO T-18, page 80). The proposed customer charges were designed to recover approximately the same share of the Schedule G customer cost of service as in the final rate design in the MECO test year 1999 rate

case (MECO T-18, pages 18-19, 49, and 80). The Consumer Advocate stated that these proposals were generally consistent with its cost of service results and did not exceed customer charges found acceptable in settlement with HECO in Docket No. 04-0113 and should therefore be approved by the Commission (CA-T-5, page 45).

Schedule J is for general power service applicable to commercial customers with loads greater than 5,000 kWh per month or greater than 25 kW, but less than 200 kW. MECO proposed Schedule J customer charges of \$50 per month for single-phase service and \$65 per month for three-phase service at Maui Division (MECO T-18, page 20), \$45 per month for single-phase service and \$60 per month for three-phase service at Lanai Division (MECO T-18, page 51), and \$32 per month for single-phase service and \$42 per month for three-phase service at Molokai Division (MECO T-18, page 81). The proposed customer charges were designed to recover approximately the same share of the Schedule J customer cost of service study results as in the final rate design for the MECO test year 1999 rate case (MECO T-18, pages 21, 51-52, and 82). The Consumer Advocate agreed with the proposed Lanai and Molokai charges for Schedule J, but proposed to limit the Maui Division increase to \$10 such that the Maui Division proposed Schedule J customer charges would be \$45 per month for single-phase service and \$60 per month for three-phase service. The Consumer Advocate's position was that the proposed customer charges for Maui Division were unacceptable when combined with the proposed demand charge increases, which would result in unacceptably large percentage bill increases to the smallest, low load factor Schedule J customers. (CA-T-5, pages 45-46.) For the purpose of reaching a settlement on rate design issues in this proceeding, MECO accepts the Consumer Advocate's proposal for Schedule J customer charges at the Maui Division.

Schedule H is an end-use rate that applies to specific commercial electric loads, including commercial cooking, heating, air conditioning, and refrigeration loads. MECO proposed Schedule H customer charges of \$40 per month for single-phase service and \$55 per month for three-phase service at the Maui and Lanai Divisions (increases of \$12.00 to \$13.00 per month), while leaving the Schedule H customer charges at Molokai Division unchanged (MECO T-18, pages 23, 54, and 85). The proposed customer charges are designed to recover less than the same share of the Schedule H customer cost of service, similar to the final rate design in the MECO test year 1999 rate case, in order to moderate the increase in the customer charge rates.

In its direct testimony, the Consumer Advocate stated that considering the higher unit customer costs to serve Schedule H (as shown on MECO-1810, page 1 and CA-501, page 1), the Company's proposal to close Schedule H to new customers and the Consumer Advocate's proposal to limit Schedule H demand charge increases (discussed below), the Company's proposed customer charge increases for Schedule H were reasonable (CA-T-5, page 46).

Schedule P is for general power service applicable to commercial or industrial customers with large power loads of at least 200 kW. MECO proposed to increase the Schedule P

customer charge from \$225 to \$375 for the Maui Division (MECO T-18, page 25), with no changes in the Schedule P customer charge for the Lanai and Molokai Divisions (MECO T-18, pages 56, 86). The proposed customer charge increase for the Maui Division is designed to recover less than the same share of the Schedule P customer cost of service as in the final rate design in the MECO 1999 test year rate case in order to moderate the increase in the customer charge (MECO T-18, page 26).

The Consumer Advocate recommended limiting the Maui Division Schedule P customer charge to \$300 per month at this time to moderate the impact of rate changes upon the smallest Schedule P customers (CA-T-5, page 46). For purposes of reaching a settlement on rate design issues, MECO accepts the Consumer Advocate's proposal.

Commercial Rate Schedules – Demand Charges

MECO proposed the following increases to demand charges in Schedules J, H, and P (MECO T-18, pages 20, 23, 25; 51, 54, 56; 81, 85, and 86-87).

<u>MECO PROPOSED DEMAND CHARGES</u> (PER KW-BILLED)						
	Maui		Lanai		Molokai	
Schedule	Existing	Proposed	Existing	Proposed	Existing	Proposed
J	\$5.75	\$12.00	\$5.75	\$9.00	\$4.75	\$11.00
H	\$4.50	\$7.00	\$4.50	\$8.00	\$6.00	\$10.00
P (0-500 kW)	\$8.50	\$18.00	\$8.50	\$22.00	\$5.00	\$11.00
P (≥ 501 kW)	\$8.00	\$17.00	\$8.00	\$20.00	\$4.85	\$10.00

The proposed demand charges were designed to recover a greater proportion of the demand costs through the demand charges rather than through energy charges, in order to align rates closer to their cost of service (MECO T-18, pages 21, 24, and 26).

In its direct testimony, the Consumer Advocate expressed concern about the impact of the proposed demand charge increases on lower load factor customers and recommended limiting demand charge increases to no more than 30% above the demand charges presently in effect so as to more gradually increase rates towards the indicated demand cost of service (CA-T-5, pages 48-49). MECO is willing to limit the Schedule J and Schedule H demand charge increases to no more than 30% above the demand charges currently in effect and reduce its proposed demand charges for Schedule P by \$2.00 per kW. For purposes of settlement, the Parties agree on the following demand charges.

<u>DEMAND CHARGES</u> <u>MECO-CONSUMER ADVOCATE AGREEMENT</u> (PER KW-BILLED)						
	Maui		Lanai		Molokai	
Schedule	Existing	Proposed	Existing	Proposed	Existing	Proposed
J	\$5.75	\$7.50	\$5.75	\$7.50	\$4.75	\$6.15
H	\$4.50	\$5.85	\$4.50	\$5.85	\$6.00	\$7.80
P (0-500 kW)	\$8.50	\$16.00	\$8.50	\$20.00	\$5.00	\$9.00
P ( $\geq$ 501 kW)	\$8.00	\$15.00	\$8.00	\$18.00	\$4.85	\$8.00

#### Commercial Rate Schedules – Energy Charges

In its direct testimony, MECO proposed to recover in Energy Charges the part of the class revenue requirement that is not provided by the proposed customer and demand charges, net of all other adjustments. The Consumer Advocate agreed that this was a reasonable approach, subject to its proposed constraints regarding the need to gradually increase customer and demand charges. (MECO T-18, pages 21, 24, 26; 52, 55, 57; 83, 85, and 87-88 and CA-T-5, page 49.)

#### Commercial Rate Schedules – Power Factor Adjustment

Large commercial customers with demands of 200 kW or more are subject to power factor adjustments based on their measured use of var-hours. Under current MECO rates, power factor adjustments are credits for power factors above 85% and surcharges for power factors below 85% (the breakpoint is 90% at Molokai Division). In its direct testimony, the Consumer Advocate recommended that MECO provide in its next general rate filing either: (a) Company-specific studies to support the Company's proposed power factor rate credits; or (b) an explanation as to how the results of analysis performed for HECO and HELCO can be applied to MECO's costs and power factor adjustment (CA-T-5, page 55). MECO agrees in its next rate filing to complete a MECO power factor study in support of revised power factor rate elements or explain how the results of a HECO or HELCO study would apply to MECO for such purposes.

#### Commercial Rate Schedules – Schedule H

As HECO and HELCO have proposed in Docket Nos. 2006-0386 and 05-0315, MECO also proposed to close its only end-used based Schedule H tariff to new customers as part of a plan to transition Schedule H customers to Schedules J and P (MECO T-18, pages 23, 54, and 85-86). MECO is moving towards clearer distinctions between its commercial customers, and the number of Schedule H customers is relatively small compared to the number of Schedule G, Schedule J, and Schedule P customers. If any Schedule H customers remain at the time of the next MECO rate filing, the Consumer Advocate recommends that MECO be required to submit evidence of the continuing need for Schedule H or a plan for orderly migration of remaining Schedule H customers to other rate schedules (CA-T-5, pages 53-54). For purposes of settlement, the Company



agrees to eliminate Schedule H in its rate design proposal in the next MECO general rate case.

4. Other Revisions to Rate Schedules/Rule Changes

MECO also proposed the following rate schedule/rule changes:

- Increase Schedule G minimum charges to maintain the price differential between the customer charge and minimum charges that are in existing MECO rates (MECO T-18, pages 19, 49, and 80).
- Modify the determination of billing demand in Schedule J for simplicity and ease of understanding. The proposed average demand ratchet is the same as the current demand ratchet in Schedule P, making the demand ratchet provisions for all of the demand rate schedules the same and consistent (MECO T-18, pages 22, 53, and 84.)
- Modify the Schedule J Availability Clause (MECO T-18, pages 21-22, 52-53, and 83):
  - to better define and clarify the load size that qualifies under Schedule J for ease of understanding and application;
  - to make a clearer distinction between the medium-sized customers served under Schedule J, and the large power customers served under the Schedule P;
  - to apply Schedule J to a more homogenous group of medium-size commercial and industrial customers with similar load levels and characteristics, essential for designing more efficient pricing and costing, and facilitate aligning rates closer to cost of service; and
  - to support rate and revenue stability and continuity
- Modify the Schedule P Availability Clause to exclude all customers that would be served under Schedule J (MECO-108, page 13; MECO-109, page 12; MECO-110, page 12).
- Close Schedule U to new customers because there are no customers on this rate (MECO T-18, pages 28, 59, and 91).
- Close Schedule N at Molokai Division to new accounts (Schedule N service is only available on Molokai) (MECO T-18, page 88).
- Modify the terms and conditions of Rider T to allow customers to do emergency maintenance on their equipment without considering its impact on the customers' on-peak billing demand (MECO T-18, pages 30, 60, and 92).
- Terminate the electric vehicle charging rates because there are no customers and no formal PUC approval to implement these riders (MECO T-18, pages 44-45, 75-76, and 107-108).
- Offer four new time-of-use rate options in this case, Schedule TOU-R – Residential Time-of-Use Service, Schedule TOU-G – Small Commercial Time-of-Use Service, Schedule TOU-J – Commercial Time-of-Use Service, and Schedule TOU-P – Large Power Time-of-Use Service, in order to extend to all customers the opportunity to choose time-of-use rates, to establish a consistency in rate design for all time-of-use rate options, and to manage participation and

collect data for future time-of-use rate designs, consistent with the proposals made in the HECO rate cases Docket No. 04-0113 and Docket No. 2006-0386 and in the HELCO rate case Docket No. 05-0315 (MECO T-18, pages 34-35, 65-66, and 97-98).

- Modify the returned check charge, field collection charge, and service establishment charge based on the costs of the various activities (MECO T-18, pages 108-110).

In its direct testimony, the Consumer Advocate did not object to these proposals. In particular, the Consumer Advocate stated the following in its direct testimony:

- The Consumer Advocate did not object to MECO's proposed changes to the commercial rate availability provisions and the Schedule J demand ratchet, which were comparable to tariff changes proposed by HECO in Docket No. 04-0113 (CA-T-5, page 50).
- The Consumer Advocate supported the Company's TOU rate proposal subject to MECO adjusting the final rate levels within the proposed TOU rates to maintain parity with the final sales rate levels ultimately approved by the Commission for the related basic sales rate schedules (CA-T-5, page 53).
- The Consumer Advocate stated that the proposed returned check charge, field collection charge and service establishment charge, were acceptable and were supported by detailed time and expense cost studies prepared by MECO and compared reasonably to price changes recently agreed upon by the Consumer Advocate for implementation by HELCO and HECO in Docket Nos. 05-0315 and 2006-0386 (CA-T-5, page 57).

Thus, the Consumer Advocate and MECO are in agreement regarding these other tariff and rule change matters.